Pressure Sensor with Ceramic Sensor Element

SEN-96

- Gauge pressure
- Measuring range:
  -1...0 bar...0...+600 bar
- Measuring span
  from 1 bar
- Temperature (medium):
  -25...+100 °C
- Accuracy:
  0.5 % (0.75%)
  of full scale
- Material: stainless steel
  and ceramic

P2

KOBOLD companies worldwide:
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Description

The KOBOLD SEN-96 standard model is an electronic transmitter with ceramic sensor for air, industrial, technical gases, water and oil, designed to be installed in gas distribution plants, on bottles, on refrigerators, on compressors, on vacuum pumps and hydraulics and water high pressure plants.

Technical Details

Ranges:	0 ... 1/0 ... 600 bar, relative, -1 ... 0/-1 ... +24 bar, relative
Accuracy:	≤ ± 0.5% of full scale[1)] (all ranges except C 315, B 025 and A 165) ≤ ± 0.75% of full scale[1)] (for ranges C 315, B 025 and A 165)
Non-linearity (BFSL):	≤ ± 0.25 % of full scale, (all ranges except C 315, B 025 and A 165) ≤ ± 0.5% of full scale, (for ranges C 315, B 025 and A 165) according to EN 61298-2
Non-repeatability:	≤ 0.1 % of full scale, according to EN 61298-2
Output signal deviation of zero:	≤ ± 0.5 % of span, typical; ≤ ± 0.75 % of span, max.
Thermal drift:	0 ... 80 °C, 1 % of span[3)]; 2.5 % of span, max.
Long term drift:	≤ 0.1 % of span, according to EN 61298-2
Process fluid temp:	-25 ... +100 °C
Ambient temperature:	-25 ... +85 °C
Stocking temperature:	-30 ... +85 °C
Output signals:	4 ... 20 mA, 0...5 V_{DC}, 0...10 V_{DC}, 1 ... 5 V_{DC}, 0.5 ... 4.5 ratiometric V_{DC}
Response time:	<4 ms
Emission and immunity:	according to EN 61326, (group 1 - class B; industrial applications)
Process connection:	AISI 316L (1.4404), hole ø 2.5 mm
Sensor:	ceramic in Al_2O_3
Case:	AISI 316L (1.4404)
Gasket (Sensor):	FKM
Electric connection:	EN 175301-803 Form A
Protection degree:	IP 65 according to IEC 529 / EN 60529[2)]
Weight:	0.12 kg

[1)] Including non-linearity, hysteresis, non-repeatability and output signal deviation of zero at the reference conditions described in standard EN 61298-1

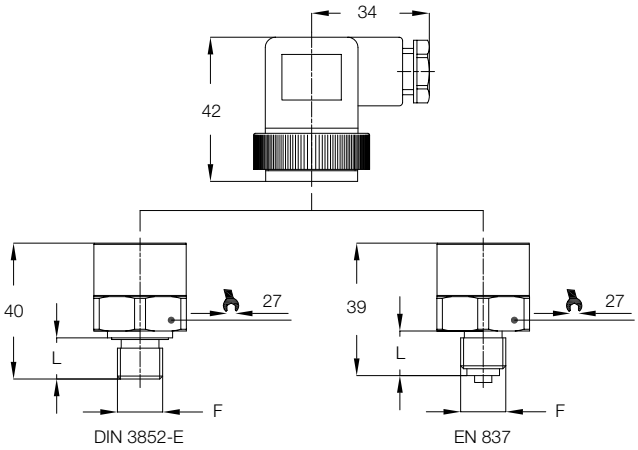
[2)] With properly assembled electric connection

[3)] For measuring ranges C 315 ... C 565, B 025 and A 165

Measuring ranges [bar, relative]	Overpressure limit [bar, relative]
-1 ... 0	5
-1 ... 0.6	5
-1 ... 1.5	5
-1 ... 3	8
-1 ... 5	12
-1 ... 9	20
-1 ... 15	32
-1 ... 24	50
0 ... 1/0 ... 1.6/0 ... 2.5	5
0 ... 4	8
0 ... 6	12
0 ... 10	20
0 ... 16	32
0 ... 25	50
0 ... 40	80
0 ... 60	120
0 ..100	200
0 ...160	320
0 ... 250	500
0 ... 400	600
0 ... 600	800

Other ranges available on demand. Units of measurement available in psi, MPa, kPa too

Dimensions [mm]



F[1)]	L [mm]
A - G ½, male EN 837	20
B - G ¼, male EN 837	13
E - G ¼, male DIN 3852-E[2)]	13
F - ½ - 14" NPT	20
G - ¼ - 18" NPT	13

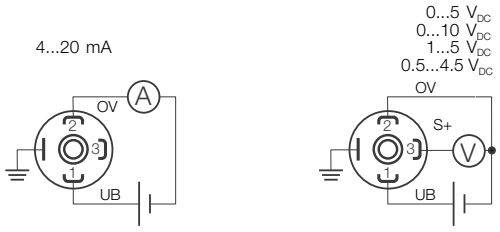
[1)] Torque 20...30 Nm

[2)] For pressures up to 400 bar

No responsibility taken for errors;
subject to change without prior notice.

1/01 - 2019

Wiring Diagram



Order Details (Example: **SEN-9601 0 B075 A 0**)

Model	Output	Measuring range	Mechanical connection	Options
SEN-9601...	**...0...** = 4-20 mA, 2-wire **(standard)** **...1...** = 0...5 V_{DC} (8...30 V_{DC}) **...2...** = 0...10 V_{DC} (14...30 V_{DC}) **...3...** = 0.5...4.5 V_{DC} ratiometric (5 V_{DC} ±10%) **...4...** = 1...5 V_{DC} (8...30 V_{DC})	**C 315** = -1...0 bar **C 505** = -1...0.6 bar **C 515** = -1...1.5 bar **C 525** = -1...3 bar **C 535** = -1...5 bar **C 545** = -1...9 bar **C 555** = -1...15 bar **C 565** = -1...24 bar **B 025** = 0...1 bar **B 035** = 0...1.6 bar **B 045** = 0...2.5 bar **B 055** = 0...4 bar **B 065** = 0...6 bar **B 075** = 0...10 bar **B 085** = 0...16 bar **B 095** = 0...25 bar **B 105** = 0...40 bar **B 115** = 0...60 bar **B 125** = 0...100 bar **B 135** = 0...160 bar **B 145** = 0...250 bar **B 155** = 0...400 bar **A 165** = 0...600 bar	**A** = G½, male **(standard)** **B** = G¼, male **(standard)** **E** = G¼ DIN 3852-E, male **F** = ½" NPT, male **G** = ¼" NPT, male	**0** = without **Y** = special option (specify in clear text)

Output signal	**4...20 mA** **0**	**0...5 V_{DC}** **1**	**0...10 V_{DC}** **2**	**0.5...4.5 V_{DC}** **ratiometric - 3**	**1...5 V_{DC}** **4**
No. of wires	2	3	3	3	3
Load max.	$R_L \leq$ (UB-8)/0.02 Ω	$R_L \geq$ 5 kΩ	$R_L \geq$ 10 kΩ	RL ≥ 4.5 kΩ	RL ≥ 5 kΩ
Supply: UB	8...30 V_{DC}	8...30 V_{DC}	14...30 V_{DC}	5 ±10%	8...30 V_{DC}
Absorbed current (mA) max.	<25	<10	<10	<10	<10

All output signals are provided of protection against short circuit and polarity inversion. Insulation tension 500 V_{DC}

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